

# PATENT SPECIFICATION

DRAWINGS ATTACHED

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## COMPLETE SPECIFICATION

### Cutting Device

We, AKTIEBOLAGET DENTATUS, of Jakobsdalsvägen 14—16, Hägersten, in the Kingdom of Sweden, a Swedish Company, do hereby declare the invention, for which we pray that

5 a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to cutting devices, particularly to hand cutting devices for cutting  
10 plaster bandages or similar materials of the kind, including a reciprocable member connected to a tubular tool one end of the tool being formed as a cutting edge which alternately is driven into, and withdrawn from, the  
15 material while being fed transversely of the direction of the reciprocating movement, and a base member which in the cutting operation is slid under the material to be cut and which when the cutting device is used for cutting  
20 plaster bandages prevents the bandage from exerting pressure upon the underlying part of the body of the patient.

In known devices of the kind referred to the base member is attached to the casing of the  
25 device by a bracket provided with a guide slot for a guide block connected with the tubular tool. A more simple construction necessitating a reduced number of parts as compared with the known devices may be obtained according  
30 to the present invention.

The invention provides a cutting device of the kind stated characterized in that the base member is connected to the casing of the  
35 device by means of a web and the tubular tool has a longitudinally extending slot, the edges of which are guided, during the movement of the tool, by means of grooves in this web.

The invention is described more closely hereinbelow with reference to the accompanying drawing in which —

40 Fig. 1 is a partly sectional view of the lower part of a hand cutting device including a tubular cutting tool according to the invention, and Fig. 2 a cross-sectional view along the line  
45 II—II of Fig. 1, the tool being moved down

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from the position shown in Fig. 1 into contact with the material to be cut out. Fig. 3 illustrates two modified cross-sectional shapes of the tool.

Referring to the drawing, reference numeral 50 1 denotes the casing of the hand cutting device which has a reciprocable member 2 connected with a tool 3 which is secured to said member by means of a bayonet-joint. The lower part of the tool consists of a tube 4 having an edge 55 at its lower end. The tube passes through a bushing 6 connected with the casing. A base member 7 is connected with the bushing by means of a screw 8 and a web 9. The tube has a longitudinally extending slot the edges 60 of which are guided in grooves 11 provided on either side of the web 9. Inside the lower end of the tube there is provided a barb 12 or equivalent such that the inner diameter of the tube at the edge is smaller than the diameter of the remaining part of the tube. At the slotted  
65 side of the tube there is provided an opening 13 between the edge and the fastened part of the tube. It will be seen from Fig. 2 that the part 14 of the web 9 located beyond the grooves  
70 projects into the tube 4.

In operation of the hand cutting device, the base member 7 is slid under the plaster bandage 15. During the downward stroke of the tool 3, part of the material of the bandage will be cut  
75 out and will enter the tube 4. During the upward stroke of the tool, the material which has entered the tube is prevented, by means of the barb 12, from falling down into the hole formed in the material. Consequently, the tool  
80 can be fed transversely until the part 14 projecting into the tube 4 comes into contact with the wall of the hole, as shown in Fig. 2, whereupon a new part of the material is cut out during the downward stroke of the tool. It will  
85 be obvious that during each downward stroke of the material there will be cut out a part of the material which does not entirely fill up the interior of the tube, since the web part 14 projecting into the tube prevents the feed for  
90

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each working stroke from becoming equal to the inner diameter of the tube 4. This fact in combination with the reduced inner diameter at the edge of the tube results in that the cut  
5 out material does not pack in the tube but without obstruction leaves the tube through the opening 13.

Due to the above described shape of the tool there is obtained a slot in the material, the contour of which is indicated in Fig. 2 and the  
10 width of which is greater than that obtained with conventional cutting devices. A further advantage consists in that the cutting direction may take sharp turns.

15 Fig. 3 illustrates two modified shapes of the tube 4. These shapes counteract to a still higher degree than a circular shape any tendency of the cut out material to get stuck in the tube.

Also in other respects, the form of construction described is to be considered as an example  
20 only which in practice may be modified in various manners within the scope of the invention.

#### WHAT WE CLAIM IS:—

25 1. A cutting device, particularly a hand-cutting device for plaster bandages or similar materials including a reciprocable member connected to a tubular tool one end of the tool being formed as a cutting edge which alternately  
30 is driven into, and withdrawn from, the material while being fed transversely of the direction of the reciprocating movement, and a base member adapted to be slid under the

material, in which the base member is connected to the casing of the device by means of a web 35 and the tubular tool has a longitudinally extending slot the edges of which are guided, during the movement of the tool, by means of grooves in the web.

2. A cutting device according to claim 1, 40 characterized in that a part of the grooved web projects into the tube and thereby prevents the feed of the tool for each stroke from becoming so long as to cause the tube to be entirely filled with cut out material. 45

3. A cutting device according to claim 1 or 2, characterized in that the cross-sectional area of the edged mouth of the tube is smaller than the cross-sectional area of the remaining part of the tube, whereby to facilitate removal of the cut  
50 out material.

4. A cutting device according to claim 3, characterized in that the inside of the edged end of the tube is provided with a barb or equivalent which prevents cut out material  
55 from falling back into the groove cut out by the tool in the material.

5. A cutting device, substantially as described with reference to Figs. 1 and 2 or 3 of the accompanying drawing. 60

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**POOR QUALITY**

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1 SHEET

## COMPLETE SPECIFICATION

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the Original on a reduced scale.*

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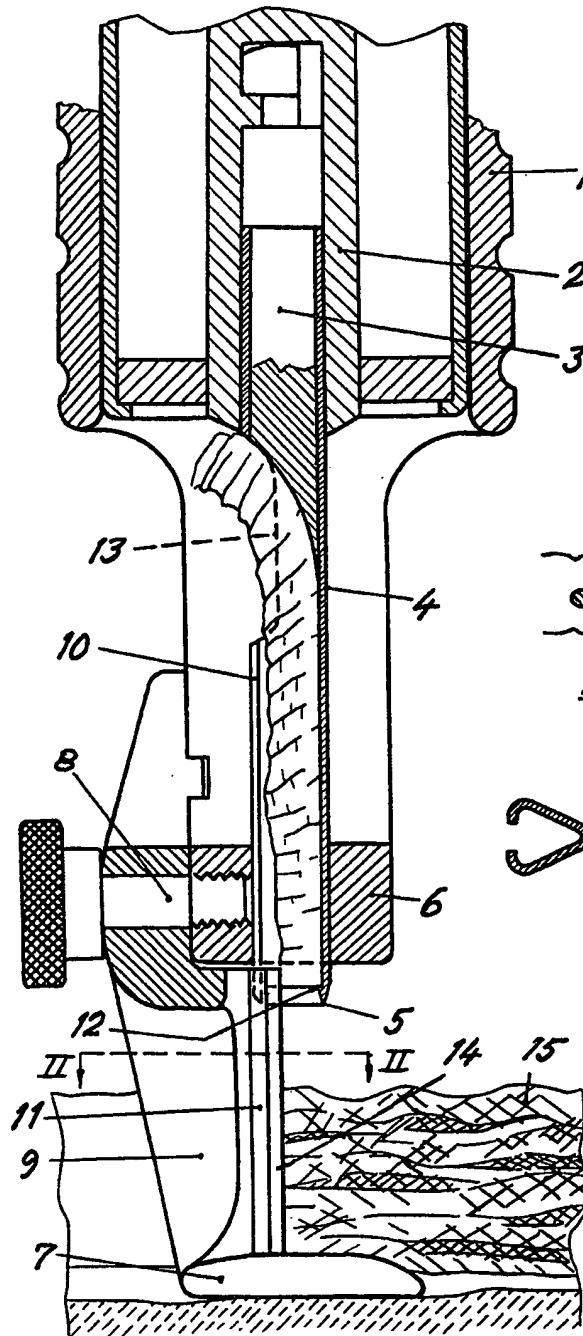
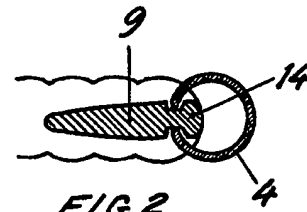


FIG. 1



**FIG. 2**



**FIG. 3**